

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended): A transmission assembly for producing a steplessly variable range of speed ratios, comprising:

an input shaft;

an output shaft;

a variable speed ratio path driveably connected to the input shaft and including a first output;

a fixed speed ratio path driveably connected to the input shaft and including a second output;

a planetary gearset including a first input ~~connected~~ secured to the first output, a second input ~~connected to the second output~~, and an output driveably connected to the output shaft; and

a coupler continually ~~driveably connected~~ secured to the second output input, and adapted to driveably connect the second output input alternately to the first input output and the second input output.

2. (original): The assembly of claim 1, wherein:

an input of the variable speed ratio path is arranged coaxially with the input shaft;
and

an input of the fixed speed ratio path is arranged coaxially with the input shaft.

3. (original): The assembly of claim 1, wherein variable speed ratio path comprises a variator for producing a continuously-variable, stepless speed ratio range, the variator including:

truncated cones having mutually parallel axes, each cone having a conical surface having a large diameter section located adjacent a smaller diameter section of the other cone, and

a traction element displaceable along an outer surface of a cone, said element driveably engaged with the conical surface of each cone.

4. (currently amended): The assembly of claim 1, wherein the fixed speed ratio path comprises:

a input pinion driveably connected to the input shaft; and

an input gear in meshing engagement with the input pinion, arranged coaxially with the first output, and adapted for a drive connection through the coupler to the second input.

5. (currently amended): The assembly of claim 1, wherein the planetary gearset comprises:

a sun gear driveably ~~connect~~ connected to the first output;

a ring gear driveably connect to the output shaft;
a carrier adapted for a drive connection through the coupler to the second output;
and
a set of planet pinions supported rotatably on the carrier and in meshing engagement with the sun gear and the ring gear.

6. (currently amended): The assembly of claim 1, wherein the planetary gearset comprises:

a sun gear driveably ~~connect~~ connected to the first output;
a ring gear driveably connect to the output shaft;
a carrier adapted for a drive connection through the coupler to the second output;
and
a first set of planet pinions supported rotatably on the carrier and in meshing engagement with the sun gear; and
a second set of planet pinions supported rotatably on the carrier and in meshing engagement with the ring gear.

7. (original): The assembly of claim 1, further comprising:
a final drive gearset including an output pinion driveably connected to the output,
and an output gear in meshing engagement with the output pinion.

8. (currently amended): A method for operating a power split transmission including a variable speed ratio path driveably connected to ~~the~~ an input shaft and including a first output, a fixed speed ratio path driveably connected to the input shaft and including a second output, a planetary gearset including a first input continuously driveably connected to the first output, a second input connected to the second output, and a coupler, the method comprising the steps of:

using the coupler to connect mutually the first output and the second input;
varying the speed ratio produced by the variable speed ratio path;
using the coupler to connect mutually the second output and the second input; and
varying the speed ratio produced by the variable speed ratio path.

9. (currently amended): The method of claim 8, wherein the planetary gearset includes a sun gear driveably ~~connect~~ connected to the first output, a ring gear, a carrier, and a set of planet pinions supported rotatably on the carrier and in meshing engagement with the sun gear and the ring gear, wherein:

the step of using the coupler to connect mutually the first output and the second input further comprises using the coupler to connect mutually the first output and the carrier; and

the step of using the coupler to connect mutually the second output and the second ~~output~~ input further comprises using the coupler to connect mutually the second ~~input~~ output and the carrier.

10. (original): The method of claim 8, wherein the step of varying the speed ratio produced by the variable speed ratio path includes the step of moving the traction element along an outer surface of a cone such that the output shaft is driven in a stepless range of reverse speed ratios.

11. (original): The method of claim 8, wherein the step of varying the speed ratio produced by the variable speed ratio path includes the step of moving the traction element along an axis of a cone such that the output shaft is driven in a stepless range of forward speed ratios.

12. (original): The method of claim 8, wherein the step of varying the speed ratio produced by the variable speed ratio path includes the step of moving the traction element along an outer surface of a cone such that the output shaft does not rotate.

13. (original): The method of claim 8, wherein the variable speed ratio path includes a variator for producing a continuously-variable, stepless speed ratio range, the variator including truncated cones having mutually parallel axes, each cone having a conical surface having a large diameter section located adjacent a smaller diameter section of the other cone, and a traction element driveably engaged with the conical surface of each cone, and wherein the step of varying the speed ratio produced by the variable speed ratio path includes the step of moving the traction element along an outer surface of a cone.